9924 - 10059

livewire®

19¢ NUMBER L-1

A SCHOOLARAMA PRODUCT
P. O. BOX 2490, SAN FRANCISCO, CALIFORNIA

$5.00 REWARD

for return to

Arthur Cronquist
New York Botanical
Garden
Bronx 58, New York

9924 - May 3, 1964
Nevada, Clark Co
With Larrea, Coleogyne, and Yucca brevifolia on sandy ridge - top 2 miles north of Searchlight. Twp 28 S., R. 63 E.
Elevation about 3900'.
Corolla slightly irregular, lavender with deeper purple lines. Leaves now mostly dried up and somewhat pungent.
Eriastrum eremicum (Jeps.) Mason

523
Eriastrum (7) ✓ V. ✓ 584

9925 - May 4, 1964
Nevada, Clark Co.
Broad, sandy bottom of a shallow dry wash in Larrea desert about 22 miles west-southwest of Mesquite. Twp. 14 S., R. 67 E., about S. 14.
Elevation about 2100 feet
Plants prostrate.
Flowers bright pink-lavender.

Abronia villosa Wats.

2500 2nd 973.2
abronia (18)

9926 - May 4, 1944

Same places as 9925.
Stems numerous,
obliquely ascending.
Corolla minute, white

Pectocarya linearis (R. & P.) DC.
var. platycarpa (Munz & Johnst.) Crong.

Pectocarya (3)

9927 - May 4, 1964.
Same place as 9925.
Heads yellow. Rays 26-55,
in several series.
Plant appearing distinct
from B. multiradiata,
differing in its
smaller heads as well
as in the leafier stems.

Baileya pleniradiata Harv. + Gray

26-55

Bailey pleniradiata (7) ✓ ✓

9926 - May 4, 1964.
Same place as 9925.
Corolla slightly irregular, lavender with some darker marks.

Eriastrum eremicum (Jeps.) Mason

Eriastrum (4) ✓ /.

9929 - May 4, 1964
Same place as 9925.
Stems ascending.
Flowers yellow.

Lesquerella palmeri S. Wats.

(1)

Lesquerella (1) ✓ ✓

9930 - May 5, 1965

Arizona, Mohave Co.
Sandy places in rocky, gravelly bottom and margin of a large dry wash about a mile above its confluence with the Virgin River, 15 miles southwest of St. George, Utah, in the Beaver Dam Mts. Twp. 41 N., R. 13 W., about S. 4 or 9. Elevation about 2800 feet. Flowers bright pink-purple. Larrea zone.

Wedeliella incarnata (L.)
Cockerell

Wedeliella i.

9931 – May 5, 1964
Arizona, Mohave Co.
Rocky, gravelly bottom
of a large dry wash
about a mile above its
confluence with the
Virgin River, in the
Beaver Dam Mts. 15 miles
southwest of St. George,
Utah. Twp. 41N., R. 13W.,
about S. 4 or 9. Elevation
about 2500 feet. Stem bright
white. Leaves crinkly-margined.
Petals bright yellow inside,
dull whitish outside.
(Larrea zone.)

Mentzelia pumila (Nutt.) T. & G.
var. multiflora (Nutt.) Urban

Mentzelia (2) ✓ ✓

9932 - May 5, 1964.

Same place as 9931.
Corolla white, ascending,
bilabiate, the upper lip
3-lobed, the lower one
2-lobed. Stamens 4,
3 seemingly opposite
the lobes of the upper
lip, the fourth between
the lobes of the lower lip.

Nemacladus glanduliferus Jeps.
var. orientalis McVaugh

(2) ✓

May 5, 1964
Same place as 9931.
Flowers rich purple.

Phacelia pulchella Gray

phacelia (3) ✓

7531 - May 5, 1964.
Arizona, Mohave Co.
Gravelly banks of a large
dry wash, about a mile
above its convergence
with the Virgin River,
in the Beaver Dam Mts.,
15 miles southwest of
St. George, Utah.
Twp. 41 N., R 13W., about
S. 4 or 9. Elevation about
2500 feet, in Larrea zone.
Stems numerous
from a woody taproot and
crown. Petals very pale
salmon (almost white) at
anthesis, image becoming
red-vermilion.
Grass, Cochise Hall,
Flora (3)

9935 May 5, 1964
Arizona, Mohave Co.
Along the banks of
the Virgin River in
the Beaver Dam Hills
about 15 miles south-
west of St. George, Utah.
Twp. 41 N., R. 13 W., probably
not far from the corner of
sections 4, 5, 8 and 9.
Elevation about 2500
feet. Arborescent shrubs
up to about 5 m. tall.
Flowers ranging from
rich pink to nearly white,
with some variation (but
not the whole range) even
on one plant.
Tamarix pentandra Pall.

Tamarix 35

9936 - May 6, '12.

~~Capt's, very sandy slope~~
Utah, Washington Co.
Open, very sandy slopes,
with sagebrush and Cole.
Gyne, about 10 miles
north-northwest of St.
George. Twp. 41S, R. 16W.,
S. 10 or 15. Elevation
about 4100 feet.
Corolla white, with
yellowish tube.

Phacelia ivesiana Tor
var. ivesiana

Phacelia (2) ✓

9937 – May 6, 1964
[illegible] 9936.
Heads yellow, with
mostly 8 rays.

Eriophyllum wallacei
(Gray) Gray

Eriophyllum (4) √

9938 - May 6, 1964

Utah, Washington Co.
Very sandy soil in Snow Canyon, about 3 miles airline north-northwest of St. George. Twp. 41 S., R. 16 W., about S. 27. Elevation about 3300 ft.
Plants fibrous rooted from a branching caudex. Stems several to numerous, loosely clustered, tending to ascend or become arcuately flared. Flowers secund, declined, scarlet.

Penstemon eatoni Gray

1935

Eastman (8)

9939 - May 6, 1964
Utah, Washington Co.
With Larrea and Artemisia filifolia on sandy flats near the base of Red Mesa, about 6 miles airline northwest of St. George. Twp. 41 S., R. 16 W., S. 33. Elevation about 3100 ft.
Heads yellow. Rays 18-58, multiseriate. Plants with smaller heads than B. multiradiata, the rays shorter and fewer, the involucre, the stems also more branched and leafy.
Baileya pleniradiata Harv. & Gray

Baileya pleniradiata (8) ✓

9940 - May 7, 1964

Arizona, Mohave Co.
Along a dry wash in
Sandy desert 17 miles
southeast of Boulder
City, Nevada.

Elevation about 2300 feet.
Much branched shrubs
up to about 6 dm. tall.
Heads orange.

Bebbia juncea (Benth.) Greene
This form has been called
var. aspera Greene

Roll no. 8 (10)

9941 - May 8, 1964
Arizona, Mohave Co.
In the desert 6 miles west-
northwest of Kingman.
Mixed desert shrub com-
munity, Larrea present
but not dominant.

Elevation about 3300 feet.
Shrubs up to about 5 dm.
tall. Perianth segments
with a median reddish
stripe on a nearly white
background.

Eriogonum fasciculatum Benth.
var. polifolium (Benth.) T. & G.

plate 10
(13) ✓
Eriogonum

9942 - May 8, 1964.
Same place as 9941.
Soft shrubs up to about 5 dm. tall. Heads yellow. Rays usually 5 or 8, seldom 4 or 6. Plants just beginning to bloom.

Psilostrophe cooperi
(Gray) Greene

Photo #11
Psilostrophe (9)

9943 - May 8, 1964
Same plant as 9941.
Bracts scarlet. Only one
plant seen.

Castilleja chromosa A. Nels.
det. NH Holmgren

/

✓

Castilleja aff. chromosa (1)

9944 - May 8, 1964.

Same place as 9941.

Plants taprooted, perennial and eventually developing a branched caudex atop the taproot, but blooming the first year and thus capable of functioning as a winter-annual. Heads yellow. Rays 33-57, multiseriate, becoming reflexed and papery-persistent.

Baileya multiradiata Harv. & Gray

Baileya multiradiata (10)

[illegible] - May 8, 1964
Arizona, Mohave Co.
Sandy soil in and along a
broad, shallow dry wash
in Sonora desert in the
middle of the valley between
Kingman and Davis Dam,
about 14 miles west of
Kingman and 7 miles
east of Union Pass. Twp. 21 or 22 N.,
R. 19 W.
Elev. about 2900 feet.
Perianth dull reddish, or
partly yellowish.
Chromosome number [illegible]
[illegible] James L. Reveal #[illegible] Col. 16.

Eriogonum angulosum Benth.
mixed E. pusillum Torr. & C
& thurberi [illegible] Torr.

Eriogonum (5) ✓ Fide T. Howell
May 21. 65.

9946 - May 8. 1964
Same place as 9945.
Rays 14-34, bright
blue-lavender,

Machaeranthera [illegible]
(H.&A.) [illegible]

Machaeranthera Tan. (7)

9947 - May 8, 1964.
Same place as 9945.
Corolla blue-lavender
with darker marks, the
limb slightly irregular.
Stems widely spreading
ascending, but not prostrate

Eriastrum eremicum (Jeps.)
Mason

var.

Eriastrum (8) ✓

9948 - May 8, 1964
Same place as 9945
Flowers white to
faintly lavender.
Stems prostrate or nearly so.

Eriastrum diffusum (Gray) Mason

(6)

99 [illegible] May 8, 1964.
Same place as 9945.
Stems prostrate.
Flowers yellow.

Oenothera micrantha Hornem.

4, Clan
Oenothera (5)

9950 - May 8, 1964.
Same place as 9945.
Stems prostrate. Flowers
yellow.

Lotus humistratus Greene

Lotus (1) ✓

995 | [illegible] 8.1964.
Same plaque as 9945.
Corolla slightly irregular,
marked with dull purple
and nearly white background.

Langloisia matthewsii (Gray)
Greene

langloisia (3) ✓

9952 - May 8, 1966
Same place as 9945.
Corolla bright pink-purple.

Nama demissum Gray

Nama 6.
Nemacaulis (4) ✓

9953 - May 8, 1960
Same place as 9945.
Flowers lavender to purple. Stems ascending or nearly prostrate, with divergent tips.

Nama hispidum Gray
var. spathulatum (Torr.) C. L. Hitchc.

Clear. prep. of Nama (12) ✓

99[illegible] - May 8, 1964.
Same place as 9945
Flowers white

Deschampsia flexuosa
[illegible]
[illegible]

[illegible]

9955 - May 8, 1964.
Same place as 9945.
Heads yellow. Marginal
flowers slightly irregular.

Lessingia [illegible] Gray

Grindelia (2)

9956 - May 8, 1964
Same place as 9945.
Heads yellow. Rays mostly 8.
Stems ± erect.

Eriophyllum wallacei
(Gray) Gray

73c
Eriophyllum (4) ✓

995 May 3, 1934
Nevada, Clark Co.
In crevices and on ledges of
north-facing granitic cliffs
along a dry wash on the
west slope of the McCullough
Pass, 16 miles west of Search-
light. Colony one community,
a little above upper limit
of Larrea community.
Twp. 28 S., R. 61 E.
Elevation about 4500 feet
Flowers lavender

Arabis perennans Wats.

Arabis (3)

9958 - May 9, 1964

Nevada, Clark Co.
In shallow soil of ledges on north-facing granitic cliffs along a dry wash on the west slope of the McCullough Mts., 16 miles west of Searchlight. Coleogyne community, a little above the upper limits of the Larrea community, Twp. 28 S., R. 61 E. Elevation about 4500 feet. Plants sweetly aromatic. Corolla lavender.

Phacelia anelsonii Macbr.
det. J.T. Howell, 1965

Phacelia (8) ✓

9959 - May 9, 1964
same place as 9958.
Corolla lavender, shorter
than the calyx.

Eucrypta micrantha (Torr.)
Heller

N. amoena? D /

9960- May 9, 1964
Nevada, Clark Co.
Sandy soil in and around a dry wash on the west slope of the McCullough Mts., 16 miles west of Searchlight. Coleogyne zone, a little above the Larrea community. Twp. 28S., R. 61E.
Elevation about 4500 feet.
Flowers bright yellow.

Linanthus aureus (Nutt.) Greene

Linanthus 35

9961 - May 9, 1964
Nevada, Clark Co.
Gravelly soil in and around
a wash on the west
slope of the McCullough
Mts., 1½ miles west of
Searchlight. Colletogyne
Zone, a little above the
Larrea community.
Twp. 28 S., R 61 E.
Elevation about 4500 feet.
Corolla strictly regular,
lavender with darker lines.

Langloisia setosissima (T. & G.)
Greene

Langloisia 3 s.) ✓

9962 May 7 19[illegible]
Nevada, Clark Co.
Same place as 9961.
Corolla slightly irregular, blue-lavender with darker lines

Eriastrum eremicum (Jeps.) Mason

[illegible] (C) V

9963 - May 9, 1964
Same place as 9961
Corolla dull white, or faintly tinged with lavender-pink. Heads nodding in bud, erect at anthesis.

Chaenactis macrantha D.C. Eat.

821

Chaenactis macrantha (4)

9964- May 10, 1964
Nevada, Clark Co.
Gravelly soil in a dry wash on the west slope of the McCullough Mts., 16 miles west of Searchlight. Coleogyne zone, a little above the Lanes ~~community~~.
Twp. 28 S., R. ~~61 E.~~ 5.
Elevation about 4500 feet.
Corolla bright pink purple above a pale yellowish base.

Nama demissum Gray

1965 - May 10, 1964
Same place as 9964.
Plants mephitic. Corolla
limb lavender or
lavender-purple, the
tube pale yellow. Growing
with #9966, Phacelia
distans,
without obvious hybrids.

Phacelia fremontii Torr.

9966 - May 10, 1964.

Same place as 9964.
Corolla rather light blue-lavender. Plants inodorous. Growing with #9965, Phacelia bremontii, without obvious hybrids.

Phacelia distans Benth.

(5)

9967 - May 10, 1964
Same place as 9964. Plants inodorous. Growing with # 9968, Gilia stellata, , and 9971, Gilia inconspicua. Differing from 9968 in the distinctly pink-lavender flowers, less dissected leaves, and glabrous and subglaucous lower part of stem, but producing a few apparent hybrids (9969) with pink-lavender flowers and with the stem glandular-hairy to the base.
Seeds becoming mucilaginous when wetted.

Gilia sinuata Dougl.

Gilia (16) ✓

9968 - May 10, 1964. Same place as 9964. Plants mildly malodorous, but not mephitic. Flowers white or with a very obscure bluish cast. Growing with #9967, Gilia sinuata, and 9971, Gilia inconspicua. Differing from 9967 in the essentially white flowers, more dissected leaves and in having the stem glandular-hairy to the base, but producing a few apparent hybrids (9969) with pink-lavender flowers and with the stem glandular-hairy to the base.

Gilia stellata Heller

Gilia (23) ✓

May 10, 1964
Same place as 9964.
With the putative parents.
Flowers pink-lavender.

Putative hybrid:
Gilia stellata Heller
x
Gilia sinuata Dougl.
Perhaps rather a form of
G. stellata.

hybrid (1) ✓

9970. May 10, 1964

Same place as 9964.
Corolla lavender, shorter
than the calyx.

Eucrypta micrantha (Torr.)
Heller

1 Sheet (3) ✓

9971 - May 10, 1964
Same place as 9964.
Flowers pink - lavender.
With # 9967, Gilia
sinuata, and 9968,
Gilia stellata, but
differing from both in
being somewhat scurfy-
-pubescent. Flowers more
obviously colored than in
9968, and leaves more
dissected than 9967.
No obvious hybrids seen
between 9971 and either
9967 or 9968.

"Gilia inconspicua (Smith) Sweet"
(G. ophthalmoides Brand)

Scurfy Gilia? ✓

9972 - May 11, 1964

Same place as 9964.
Stems widely spreading,
but not prostrate.
Flowers white.

Gilia polycladon Torr.

Gilia (13)

Nevada, Clark Co.

9973 - May 11, 1964

Sandy soil in the bottom of a dry wash on the west slope of the McCullough Mts. about 16 miles west of Searchlight. Calcogyne sp., a little of the upper limits of the Larrea community. Twp. 28 S., R. 61 E. Elevation about 4500 feet. Corolla slightly irregular pale lavender-pink, almost white.

Langloisia schottii (Torr.) Greene

Langloisia (5) ✓

7774 - 9 May 11, 1964
Nevada, Clark Co.
Sandy or gravelly soil
in and around a dry wash
- etc. as in 9773.
Perianth pale yellowish on
some plants, pale pinkish on
others. Chromosome number
determined by James L. Reveal
as n = 20
Eriogonum angulosum Benth.

E. maculatum Heller,
Lida T. Howell. May 21, 1965.

Eriogonum (15) ✓

9975 May 11, 1964
Nevada, Clark Co.
Same place as 9973.

Chorizanthe thurberi (Gray)
Wats.

Polygonaceae (6) ✓✓

997L - May 11, 1964
Nevada, Clark Co.
Gravelly soil in and around a dry wash on the west slope of the McCullough Mts., about 16 miles west of Searchlight. Coleogyne Zone, a little above the upper limits of the Larrea Community. Twp. 28 S., R. 60 ~~E~~ 61 E.
Elevation about 4500 feet.

Chorizanthe brevicornu Torr.

Chorizanthe (3) √ i

9977 - May 11, 1964.
Same place as 9976.
Heads yellow. Rays generally
8.

Eriophyllum wallacei
(Gray) Grey

Eriophyllum ID

9978 - May 11, 1964

Same placas 9976.
Cyathia white-margined.

Euphorbia albomarginata T. & G.

Chamaesyce 2 ✓

9979 - May 11, 1964
Nevada, Clark Co.
In disturbed, gravelly soil along a dry wash on the west slope of the McCullough Mts., about 16 miles west of Searchlight. Coleogyne Zone, a little above the upper limits of the Larrea Community. Twp. 28S., 61E.
Elevation about 4500 feet.
Corolla minute, white.

Peritocarya lineariis (R. & P.) DC. var. platycarpa (Munz & Johnst.) Cronq.

Peritocarya sp. (3) ✓

9980 - May 11, 1964

Nevada, Clark Co.

Same place as 9979. Plants coarse and suggesting ~~the~~ [illegible] Oreocarya in appearance, but evidently short-lived, probably winter-annual.

Corolla minute, white.

Nutlets [illegible], 4 or sometimes 3 by abortion of one, with dorsal and marginal ridges, the surface grooved and bulged so as to suggest an irregular cobblestone pavement.

Plagiobothrys jonesii Gray

Collected and Crypt. (7) ✓

9951 May 11, 1964
Same place as 9979.
Corolla minute, white.
[illegible] axial [illegible]

Cryptantha pterocarya (Torr.)
Greene
var. pterocarya

Growing with [illegible]
[illegible]

Cryptantha (10)

9982 - May 11, 1964.
Same place as 9979.
Corolla minute, white,
Nutlets all alike, with rectangular
[illegible]

Cryptantha pterocarya
(Torr.) Greene
var. cyclopterum (Greene) MacBr.

Growing with #9981, C. pterocarya
pterocarya, but
[illegible]

Cryptantha pterocarya (T.) ✓

9983. May 12, 1964
Nevada, Clark Co.
Disturbed, gravelly soil in a dry wash on the west slope of the McCullough Mts. 16 miles west of Searchlight. Collegyne zone, a little above the upper limits of the Larrea community.
T. 29 S., R. 61 E.
Elevation about 4500 feet.
Flowers yellow.

Malacothrix californica D.C.
Var. glabrata Gray

—Lewis

(1) ✓

9984 - May 12, 1964

Same place as 9983.
Flowers bright white.
Stems dead-white.

Oenothera decorticans
(H. & A.) Greene
var. condensata Munz

Aemithea (T) ✓

9935 - May 12, 1964
Same place as 9983
= Camera white.

Oenothera chamaenerioides

Dunellon (6)

9982 - May 12, 1964

Nevada, Clark Co.

Sandy, gravelly soil along the bottom of a dry wash on the west slope of the McCullough Hills, 5 miles west of Searchlight. Coleogyne zone, a little above the upper limits of the Larrea community.

Twp. 28S., R. 61E.

Elevation about 4500 feet.

Perianth with a dull reddish partial overlay on a pale yellow background.

Chromosome number determined by James L. Reveal as n = 20.

Eriogonum pusillum T. & G.

Eriogonum (11) ✓

Nevada, Clark Co.
9987 - May 12, 1964
Gravelly soil along a dry wash on the west slope of the McCullough Mts., about 16 miles west of Searchlight. Coleogyne zone, a little above the upper limits of the Larrea community. Twp. 28S, R. 61E. Elevation about 4500 feet. Flowers 3-4, pale pink-lavender.

Lygodesmia exigua Gray

Stephanomeria (1) V

9988 - Nevada, Clark Co.
Same place as 9987.
Corolla pale lavender,
strictly regular.

Eriastrum diffusum (Gray) Mason
This form has been called
subsp. harwoodii (Craig) Mason

Eriastrum (11) ✓

9989- May 12, 1964
Nevada, Clark Co.
Rocky, granitic hillsides
on the west slope of the
McCullough Mts., about
16 miles west of Searchlight.
Twp. 23 S., R. 61 E.
Coleogyne zone, a little above
the upper limits of the
Larrea community.
Elevation about 4500 feet.
Flowers deep blue-purple.

Phacelia crenulata Torr.

Phacelia (3) √

9990 - May 12, 1964.

Same as 9989.
Herbage glaucous.
Flowers a peculiar
buff-red.

Penstemon utahensis Eastw.

Penstemon (2) ✓

1964 – May 12, 1964
Nevada, Clark Co.
along a granitic dry
wash on the west slope
of the McCullough Mts.,
about 16 miles west of
Searchlight. Twp. 28 S.,
R. 61 E.
Coleogyne Zone, a little
above the upper limits of
the Larrea community.
Elevation about 4500 ft.
Bracts scarlet.

Castilleja Chromosa A. Nels.
det. H. K. Pohlman ✓

1056

Castilleja

1 ✓

9992 - May 14, 1964
Nevada, Nye Co.
Sandy soil of amargosa
Desert 6 miles northwest
of Lathrop Wells. Lavea-
- Fransenia Community,
Twp. 14 or 15 S., R. 49 E.
Elevation about 2800 feet.
Corolla slightly irregular,
white or very nearly so

Langloisia matthewsii (Gray)
Greene

Langloisia (4)

9993 - May 14, 1964
Same place as 9992.
Corolla slightly irregular,
bright blue lavender.

Eriastrum eremicum (Jeps.) Mason

Eriastrum (5) ✓

9994 - May 14, 1964

Same place as 9992.
Flowers 5 per head, less
often 6 or 7, lavender-pink.
Juice milky.

Stephanomeria exigua Nutt.

Lepidium nitidum (3)

9511 - May 14, 1964
Same area as 7992
Stems spreading - ascending.
Flowers white.

Abronia villosa Wats.

Abronia (4) ✓

9996 - May 14, '97

Same plant as 9995. Petals delicate pink, with a large crimson basal spot. Only one plant seen.

Malvastrum rotundifolium Gray

Mallow (1) ✓

9997 - May 14, 1964
Same place as 9992.

Headsyellow. Rap 8-63

Geraea canescens T.+G.

Geraea

9998 - May 14, 1964
Nevada, Nye Co.
Alkaline, gravelly west
slope overlooking the
Amargosa River, with
Atriplex and Larrea, 4 miles
north of Beatty. Twp. 11S.,
R. 47E.
Elevation about 3800 feet.
Flowers achromatous or
somewhat pinkish in bud,
pure white at anthesis

Chaenactis carphoclinia Gray

10
Chaenactis (5)

9-19-[illegible] Nov 19, 1901
Arizona, Pima Co.
In the mesquite-saguaro
wash in desert typically dom-
inated by ocotillo on the
north slope of the Santa Rita
Mts. about 17 miles north of
Sonoita. Twp. 18S., R. 16E.,
about S. 11.
Spreading tree about 10 m. tall.

Celtis reticulata Torr.

Celtis (1) ✓

10,000 - September 19, 1964

Arizona, Pima Co.
Same plants 9999.
Plants up to nearly 1 m. tall.
Heads yellow. Rays 2-3, or
on some heads only 0-1.

Bidens bigelovii Gray

10, 0: September [illegible]
[illegible] Rolling
on [illegible] savanna on the east
slope of the Santa Rita
Mts., about 10 miles
[illegible] th-northwest of Sonoita.
Twp. 19S., R. 16E., about S. 10.
small talus.

Quercus emoryi Torr.
Leaves unusually densely hairy.

Quercus emoryi (1) ✓

10,002 September 20, 1964

Arizona, Santa Cruz Co.
Farm ground along
Sycamore Creek, about 23
road miles northwest of
Nogales. Oak-savanna zone.
~~Rapid minute white.~~
Twp. 23 S., R. 11 E., about S. 12.
~~minute, white.~~ Disk yellow.
Pistillate flowers minute,
white, eligulate. Disk yellow.
Elevation about 4200 feet.

Conyza sophiaefolia H.B.K.

Conyza (2) ✓

[illegible]
Same plan as 10002
R. sup yellow

Melampodium longicorne
Gray

[illegible] ✓

10001 - Lyster Ender 20/7/64

Same place as 10002.
Shrubs ca 3 m. tall, probably colonial. or rough-barked trees up to 5 m. tall, with a trunk up to 4 dm. thick. Leaves gray.

Salix taxifolia H.B.K.

Salix taxifolia (2) ✓

10005 [illegible] 20, '26 /
Same place as 10002.
Shrub 1.5-2 m. tall.
Headache.

Baccharis glutinosa Pers.

Baccharis (2) ✓

10006. September 20, 1964

Arizona, Santa Cruz Co.
Granitic rock outcrops on south slope in oak-savanna zone (some mesquite and ocotillo also present) south of Ruby Peak, 0.7 miles east of Ruby and about 12 road miles south-east of Arivaca.
Twp. 23S, R. 11E., S. 4,
or Twp 22S. R 11E. S 33.

Peucedanum thurberi Gray

✓

Corp in 3, mailsheet 1, sheet 2

10097 - [illegible]
Arizona, Pima Co.
in mesquite savanna 7.5
miles northeast Florida
[illegible] about 33 miles south-
[illegible] of Tucson. Twp.
20 S., R. 10 E., about S. 25
Plants irregular. Flowers
[illegible]

Gilia longiflora Torr.

10097
Gilia ① ✓

Duck Creek - e. of Wasatch Lake
to Cottonwood Canyons.
+ alpine for camping up
under aspen 8 600 feet.
- also spruce & Douglas fir

10008 - May 3, 1965
Kane Co. Utah.
Barren sandy clay slopes in
pinon juniper zone 12 miles
east of Kanab. Twp. 43 S.,
R. 4½ W., S. 30. Elevation
5200 ft.
Flowers bright pink.

Linum longifolia Nutt.

Pilop ✓

16009 - May 3, 1965
Same place as 16008.
a solitary individual.
Flowers scarlet.
Plant white.

Gilia aggregata (Pursh) Sprong.
var. arizonica (Greene) Fosberg

Gilia aff aggregata (1) ✓

10010 – [illegible]
Kane Co., Utah. In
Wright Sarcobatus desert
between Virgin [illegible]
Parowan, [illegible]
east of Kanab. Twp 43
R. 3 E., S. 2 Elevation
4100 feet. Leaves narrow but
flowers. Petals rich
bright yellow, with a
[illegible] maroon crescent
[illegible] a yellow hairy,
[illegible] glandular gland.

Calochortus kennedyi Porter

[illegible] (7)

10011 - May 4, 1965

Same place as 10010. Flowers bright white, opening in the evening, withering past the next day. Petals ~~ob~~ obcordate

Oenothera caespitosa Nutt.
var. marginata (Nutt.) Munz

Oenothera caespitosa (4) ✓

10013 May 6, 1965.
Low, prostrate mound.
Flowers: pink-purple.

Astragalus amphioxys Gray
var. vespertinus (Sheld.) Barneby
det R C. Barneby

Astragalus & Hypoglottis (5) ✓

10013 - May 4, 1965
Same place as 10010.
Plants malodorous, but
not unpleasant. Flowers
lavender.

Phacelia pulchella Gray
var. Sabulonum J. T. Howell

Phacelia (35) ✓

10014. May 4. 1905
~~In pasture at~~ Kane Co., Utah
In loamy clay soil on
slope. Saleratus
Point between Nipple
Butte and Lake Point
about 60 miles east of
Kanab. Twp. 43 S., R. 3E.
S. E. Elevation 4100 feet.
Typhoid becoming strongly
thickened and below the
ground black. Herbage
glaucous. Innovation buds
5. Flowers 4 (seldom 5) per
involucre. Perianth pink-
lavender, 5-lobed, each
lobe notched at the tip
Hermidium alipes S. Wats.
Nyctag. 35 ✓ /

10015 - May 4, 1965

Kane Co., Utah Same place as 10010. Annual. Calyx strongly anthocyanic in bud, becoming greenish above a whitish base at anthesis. Leaves glaucous. Petals inconspicuous, achromatic.

Treptanthella longirostris (Wats.) Rydb.

Treptanthella longirostris (35)

10016 - Sept 4, 1965
Same place as 10010
Leaves bright green, not at all glaucous. Flowers yellowish-yellow. Fruit with marginal wings, the facial wings inegularly developed or absolete.

Cymopterus newberryi
(Wats.) Jones

Formation 5 ✓

10017 - May 4, 1965.

Same as 10012.

Low shrubs up to 5 dm. tall.
Plants dioecious. Twigs
bluish-green. Staminate
bright yellow. Pistillate
bracts alternate.

Two spp. are indicated
[illegible]
Ephedra [illegible]
[illegible]

Ephedra (10)

U.S. - May 4, 46
Kane Co., Utah. Rocky
open slope with Atriplex
on southwest slope of
Smoky Mountain, about
77 miles east of Kanab,
Twp. 42 S, R. 4 E.,
S. 10. Elevation 5000 feet.
Flowers yellow.

Schoenocrambe linifolia
(Nutt.) Greene

Lundell (7) ✓

10019. May 4 1965

Kane Co, Utah. In Coleogyne zone on Smoky Mt., overlooking Warm Creek, about 80 miles east of Kanab. Twp. 41 S., R. 4E., Elevation about 5600 ft. C.
Stems solitary or few
Petals pale lavender

about S. 34

Arabis pulchra Jones
var. pallens Jones

Arabis pulchra (8) ✓

1970 - May 4. 1965
Land plan as 1969.
Tracts ranging from
vermilion to scarlet
to crimson.

Castilleja [illegible]

Castilleja affinis (5)

10021 August 5, 1935 - Kane Co., Utah.
In open, piñon - juniper-
woodland on northeast
slope of Smoky Mt., about
East Clear Creek, 44 road miles
south of Escalante. Friable
sandstone of parent rock
substrate. About Twp.
40 S. R 4 E., S. 30. Elev.
about 5000 feet.
Herbage blue-glaucous.
Stems several or solitary.
Flowers ranging from scarlet
to an aff. red approaching
aff. carmine.

Penstemon utahensis Eastw.

Kaiparowits (18) ✓

1002 ft - May 5 1905.
Some plants at 1000 ft.
Roots common especially
in disturbed soil. Stems
several, curved ascending.
Flowers pink-purple.
Pods inflated, marbled with
red dots & lines, or wholly
pale.

Astragalus lentiginosus Dougl.
near
var. diphysus (Gray) Jones
det. R.C. Barneby

10023- May 5, 1965
Same place as 10021.
Leaves and lower part of stem prostrate on nearly so, the peduncles assurgent. Leaves appearing bluish gray-green. Flowers pale lavender or partly whitish.

Astragalus malacoides
Barneby

det R.C. Barneby

Astragalus (3) ✓

10024- May 5, 1915
Same place as 10021 Shrub
mostly 1.5-2 m. tall.
Leaves white, some de-
ciduous. Leaves typically
simple (unifoliolate), but
often some of them trifolio-
late or lobed, especially
on vigorous young shoots.
A few plants with the
leaves largely trifoliolate,
even on short spurs.
Young stems sharply quadrangular.

Fraxinus anomala Torr.

F. anomala (21) ✓

10025 - May 5, 1965

Kane Co., Utah

Along a dry wash in sandstone country, about 10 miles east of Escalante, Utah

East Chase Creek, 42 road miles south of Escalante. About Twps. 40 S., R. 4 E., S 21. Elevation about 5000 feet.

2 Grs. clustered on taproot and branching caudex.

Flowers blue-purple, the banner with a central white spot.

Lupinus caudatus Kell.

Lupinus 24 ✓

1 0026 - May 5, 1965
Same place as 10025.
Stems clustered on a
taproot & spreading some,
prostrate, with
ascurgent tips.
Flowers lavender.

Astragalus malacoides Barneby
det. R. C. Barneby

Astragalus sp. 1926 ✓

10027 - May 5, 1946
Same plant as 10025

Euphorbia Sendleri S. Wats.

Euphorbia (3) ✓

10028. May 5, 1965 Kane Co., Utah. In open pinon-juniper woodland in sandstone country about 7 miles northeast of Fort Chance Creek, 36 road miles south of Escalante. Twp. 39 or 42 S. R. [illegible] E. Elevation about 6000 feet. Wings and keel lavender-purple; banner pale lavender to ochroleucous. Last year's pods densely pubescent with long, white, spreading, rather stiff hairs.

Astragalus newberryi Gray var. newberryi det. R.C. Barneby

Astragalus

10029. May 5 1905.

Kane ~~Garfield~~ Co., Utah

In open, piñon - juniper
woodland in sandstone country
about 9 miles northeast of
East Kane Creek and 32
road miles south of
Escalante. Twp. 39S, R. 1E.
Elevation about 6300 feet.
Compactly branched shrub
mostly 5-15 dm. tall,
flowers yellow. Leaves
gray.

Shepherdia argentea Nutt.

:6

Shepherdia argentea (10) ✓

[illegible] May 5, 1945
Kane Co., Utah.
In aspen piñon-juniper
woodland in sandstone
country, 29 road miles
south of Escalante.
Plants forming mats.
Flowers purple.
Elevation [illegible]
6 inches.
Twp. 38 S., R. 4 E., S. 33.

Astragalus sesquiflorus Wats.
det. R. C. Barneby

90:

Astragalus (b) ✓

10031 - May 5, 1965.

~~In open, pinon - juniper~~

Garfield Co. Utah.

Same place as 10030.

Elevation about 6400 ft.

Flowers purple.

Arabis perennans Wats.

2)

Arabis (4) ✓

1032 May 6, 1963
[illegible] Ut., Utah. Sandy banks along Big Hollow, 34 miles southeast of Escalante, and several miles west of the Straight Cliffs. Colorado Zone. Elevation about 4600 ft. Perennial from a proliferous root which may appear as a fragrant annual creeper. Stems variously ascending, or with prostrate base and ascergent tips. Perianth to be greenish, the bracts white.

Abronia fragrans Nutt.

Abronia (6) ✓

16033 - May 6, 1965
Rocky, gravelly soil
in Coleogyne Zone near
Big Hollow, 34 miles south-
east of Escalante and
several miles east of the
Straight Cliffs. Elevation
about 4600 feet.

Stems semiprostrate, curved, ascending
from a very stout taproot and
branching caudex. Plant practically
inodorous. Flowers ochroleucous
except for the purple-tipped
keel. Pods firm, thick-walled,
mostly one-celled. Seeds
glaucous.

Astragalus praelongus Sheld.
var. praelongus det. R.C. Barneby

Astragalus (3)

Mark Locality for
1 = 32 1/2 or 33 is by
U.S. Coast & Geodetic
Survey marker Z 168,
1963. unit for location

10034 - May 6, 1965.

Kane Co., Utah
open, rocky, sandy
slopes in Colorgyne Zone
near Big Hollow, 34 miles
southeast of Escalante

Perianth segments white,
with a green stripe outside
Filaments forming a tube

Androstephium breviflorum
S. Wats.

Brodiaea (1) ✓

10035 - May 6, 1965.
Kane Co., Utah
Open gravelly slopes in
sandstone country,
Juniper community, at
the east base of Starlight
Cliffs, about 48 miles
southeast of Escalante.
Elevation about 4500 feet.
Flowers white. Seeds
cross-corrugated.

Phacelia ivesiana Torr.

Phacelia ivesiana (35) ✓

10036 - May 6, 1965

Kane Co., Utah. Same place as 10035. Flowers blue-purple, the banner with a central white spot.

Lupinus pusillus Pursh
var. rubens (Rydb.)

annual lupine

10037 - July 9, 1965,
Wayne Co, Utah.
Barren, gravelly clay
slopes 21 miles west of
Torrey and 2.5 miles
east of Notom. Twp. 29S,
R. 8E Elevation about 8200
feet. Bracts typically
scarlet, varying to
occasionally crimson or
red vermilion.

Castilleja chromosa A. Nels.

Castilleja (23)

10038 - May 8, 1965.
Wayne Co., Utah.
Same place as 10037
Perianth rosy red at base,
the segments ~~fading~~
white or nearly so,
with greenish midstripe

Eriogonum bicolor M.E. Jones

det. James Reveal

Eriogonum (2) J. V

1937 - May 7, 1945
Compositae 1037. Stamens yellow. Sepals and petals ochroleucous.

Streptanthus wyomingensis
A. Nels.

Mounted (3) ✓

1640. May 8, 1925. Same piece as 1637. Taproot stout, with a deep-seated tuberous thickening. Leaves blue-glaucous. Petals whitish, marked with purple.

Cymopterus purpurascens (Gray) Jones

Cymopterus

1894 - May 8 1894 -
Tarweed, 1 to 2 ft
Veins and heel purple;
leaves pale beneath
nearly white.

Astragalus chamaeleuce
Gray
det. R.C. Barneby

astragalus (1) ✓

10042 - May 8, 1905

Same place as 10037. Leaves notably long and lax, plants all more past anthesis with maturing fruit. Leaves notably long and lax, evidently channeled.

Adelophium brevifolium
S. Wats.

Allium (4) ✓

1943 - May 8, 1965
Wayne Co. Utah. Along
the bottom of small
gullies in barren gravelly
clay hills 25 miles west
of Fremont and 2.5 miles
east of Rotor. Twp. 29S.,
R. 8E. Section No. 14 SW 1/4
Tepals white with purple
midstripe, oblanceolate
to narrowly elliptic, 5 mm wide,
subacute (broadly ellip-
tical in cross-section

Allium macropetalum Rydb

. allium. (B) ✓

Idaho. May 8, 1965.
Same place as 10032.
Leaves gray. Heads yellow, with about 21 rays.
Plants just beginning to bloom

Enceliopsis nudicaulis (A. Gray) A. Nels.
var. nudicaulis

Enceliopsis

1005 May 9, 1965
Garfield Co, Utah.
Sandstone desert country
at the east rim of
Waterpocket Fold, about
45 miles south of Hatch.
Twp. 36 S., R. 7 E., near
the corner of Sections 9, 10, 15
and 16. Elevation about 4700
feet. Colegrove community.
Flowers blue-violet.
Plants very local, not
generally distributed.

Penstemon moffattii Eastw.

Mrs. Pendleton (17)

10046 - May 9, 1965
Garfield Co., Utah.
Same place as 10045.
Wings and keel purple, the
banner paler, more lavender.
Growing with # 10047.
A. mollissimus var. thompsoniae, but
sharply distinct. Plants
widely and thickly scattered.

Astragalus desperatus Jones
var. conspectus Barneby

det K. C. Barneby

Astragalus (6) ✓

10047 May 9, 1905
Sanpete Co., Utah.
Low places 6000 ft.
Wings and keel purple,
standard pale, more
lavender. Growing with
A. desperatus var. conspectus
but sharply distinct.
Plants mostly [illegible]
pubescent.

Astragalus mollissimus (Torr.)
T.&G.
var. thompsoniae (Wats.) Barneby
det. R. C. Barneby

(7)

10018- May 9, 1965.

Garfield Co., Utah.
West slope just under the
east rim of Waterpocket
Fold, about 45 miles south
of Notom, Sandstone
country. Colorgyne Zone.
Twp. 36S. R. 9E. S. 16.

Elevation about 4700 feet.
Leaves conspicuously glaucous.
Flowers varying from
red to crimson to pink.
Pollen sterile with a slight
tendency to be secund.

Penstemon utahensis Eastw.

Penstemon (32) utahensis

10049, May 9, 1965
Garfield Co., Utah, west slope a little below the crest rim of Waterpocket Fold, in sandstone country 45 miles south of Notom, Coloradyne Zone. Twp. 36 S., R. 9 E., S. 16. Elevation [illegible] 4600 feet. Plants just beginning to bloom. Heads yellow, [illegible] 10 to 12 rays.

Hymenoxys scaposa (DC.) Parker
var. linearis (Nutt.) Parker

Hymenoxys

3

10059 May 9 1945
Garfield Co., Utah
Barren clay soil in a gully
about a mile east of Water-
pocket Fold, 45 miles south
of Bicknell. Colorado zone.
Twp. 36 S., R. 9 E., Sec. 10 or 11
Elevation about 4500 feet.
Flowers full white to lavender

Androstephium
breviflorum S. Wats.

3

1:50 · May 9. 1965.
Garfield Co. Utah. Banana
clay lots in a gully
about a mile east of
Waterpocket Fold, 45
miles south of Notom.
Twp. 36S, R. 9E., S. 10 or 11.
Coloradoan Zone. Elevation
about 115 0 feet. Leaves
blue-glaucous. Flowers white

Cymopterus purpurascens
(Gray) Jones

Cymopterus (4) ✓

10 51 - May 9, 1965
Garfield Co. Wash. Same
Plants as 10050. Flowers
orchroleucous. Plants
with a mild seleniferous
odor.

Astragalus flavus Nutt.
var. candicans Gray

det. R. C. Barneby

✓

Astragalus [illegible] (1)

10052 - May 9, 1965
Garfield Co. Utah. Barren, rocky, mixed sand and clay slopes in a gully about a mile east of Hyatt pocket Fold, 45 miles south of Escalante. Twp. 36 S. R. 1 E., Sec. 5. 10 or 11. Colorado Zone. Elevation about 4500 feet. Plants with a strongly woody root. Wing-petals purple, keel petals yellow.

Polygala subspinosa S. Wats.

Polygala (2) ✓

105: 3 - May 9, 1965.
Garfield Co., Utah.
Barren sandy slopes in a
gully about a mile east
of Waterpocket Fold, 45
miles south of Notom.
Moenave Sand. Twp. 36
S., R 9 E., S. 10 or 11. Elevation
about 4500 feet. Stems
clustered on a much
branched woody caudex
surmounting a taproot.
Stems and inflorescence
pungently fragrant. Corolla
tube white to yellowish,
the limb soft white, the
fornices bright yellow.
Cryptantha fulvocanescens
(A. Gray) Payson
(9) ✓ /

1-1954 May 9, 1965
Garfield Co., Utah.
Loose, sandy, gravelly slope
in basin adjacent a gully about
a mile east of Wahweap
Fold. 45 miles south of
Natrona. Paleogene Zone.
Twp. 36S. R. 9 E. S. 18.
Elevation about 4600 feet.
Flowers purple.

Astragalus amphioxys Gray
var. vespertinus (Sheld.) Barneby
det. R. C. Barneby

Astragalus lentiginosus (2)

[illegible] – May 9, 1965
Garfield Co., Utah.
Same place as 1054.
Flowers very pale lavender, almost white.

Arabis pulchra Jones
var. pallens Jones

Arabis pulchra b. ✓

1956 - May 9, 1965.
Sanpete Co., Utah. Same
plant as 1954. Bracts
scarlet, maturing to some-
times crimson.

Castilleja chromosa A. Nels.

Castilleja (6) ✓

[illegible] 7 - May 9, 1965.
Garfield Co., Utah. Loose, sandy, rocky slope of a gully about a mile east of Waterpocket Fold, 45 miles south of Notom. Coleogyne Zone. Twp. 36 S., R. 9 E., S. 10. Elevation about 4600 feet. Plants tufted, without rhizomes.

Triodia pilosa (Buckl.) Merrill.

1-28-7 (4) ✓

Garfield Co., Utah
10058 May 10, 1965
In rocky sandy slopes over
a clay base, a little under
the east rim of Waterpocket Fold, 45 miles
southwest of Hanksville.
Coloepyne zone, Twp. 36S.,
R. 9 E., S. 9, near the corner
of sections 9, 10, 15 and 16.
Elevation about 4500 ft.
Flowers yellow. Leaves shining
green, quite dull green, but
hardly glaucous. Root variously
divided throughout or with
an elongate, deep-seated
thickening.

Cymopterus purpureus (Wats.
52
timation? all (14)

Western U. S. 1:250,000
contour interval 200 feet.

NJ 11-11 – Death Valley
NJ 11-3 – Kingman
NJ 12-10 – Grand Canyon

U. S. Geol. Survey –
Wash. D. C. –

Reproduction 10049, from
10037

T 41 N R 13 W

S 3	S 2
S 10	S. 11

863.8 - 4160 feet at first Camp

864.2. 415.4E. - 16/21

891.6 - 2nd camp. about 405.3E 5040

894.9 - Last Chance.

905.1 - jct. "Escalante 27 miles"

931.0 - stop sign #54

936 - Escalante

938.5 Escalante

946.3 Astragalus - 3 spp. Eight later

957.0 at jct

960 Cr. Fine Icans. Garfield + Straight Cliffs. Hanksville

Vegas 914.0 2300 - 2000
Manuel 996.5 2100 - 1600
Davis Dam 1114.0 550
Searchlight 4551.2 3100 = 3560
Camps. 4720 4500
Calif. line 75.7 3700
Beatty 1916 3600 or

6:40 8:55
9:50 Mid

T 36 S. R. RE. 9 | 10 / 16 | 15